AMENDMENTS TO THE CLAIMS

1. (currently amended) A method for addressing a network extension element for a synchronous optical network, comprising:

addressing an extension network element using ~~the fourth field of~~ a modified TL1 message for a command including a session identifier in a field of the modified TL1 message that originally contained an extended network element identifier in an original message to set up a SONET connection;

processing the modified TL1 message at the extension network element;

transmitting a response to the modified TL1 message including the session identifier back to a network element;

determining a port to transmit the response based on the session ID;

replacing the session ID with the extension network element identifier of the response; and

forwarding a modified response to the source of the original command.

2. (currently amended) The method according to claim 1, further comprising:

receiving a TL1 ~~command~~ message including ~~an~~ the extension network element identifier in the ~~fourth~~ field of ~~a~~ the TL1 message;

replacing the extension network element identifier with a session identifier;

transmitting the modified TL1 ~~command~~ message to an extension network element.

3. (currently amended) The method according to claim 2, further comprising:

receiving the modified TL1 ~~command~~ message at ~~an~~ the extension network element~~;~~

~~processing the modified command; and~~

~~transmitting a command response including the session identifier back to the network element~~.

4. (currently amended) The method according to claim 3, further comprising:

accepting the command response at the network element~~;~~

~~determining the port to transmit the command response based on the session ID;~~

~~replacing the session ID with an extension network element identifier; and~~

~~forwarding the modified command response to the source of the original command~~.

5. (currently amended) A method of extending an optical network, comprising:

receiving a command message from the optical network including a port identifier specifying the port of a network element that is connected to an extension network element;

replacing the port identifier with a session identifier in the command message prior to the transmitting

processing the command message at the extension network element; ~~and~~

sending a response message to the network element;

determining a port to transmit the response based on the session identifier;

replacing the session identifier with the extension network element identifier of the response; and

forwarding a modified response to a second network element.

6. (currently amended) The method according to claim 5, further comprising:

identifying a ~~DCC~~ data communication channel corresponding to the port identifier; and

transmitting the command message to the extension network element over the identified ~~DCC~~ data communication channel.

7. (cancelled)

8. (cancelled)

9. (original) The method according to claim 8, further comprising:

transmitting the response message over the network.

10. (currently amended) A system for extending an optical network, comprising:

an extension network element for connection to a network element;

wherein the extension network element is configurable to:

process command messages received from a network element without regard to the terminal identifier within the messages;

process command messages received from a network element in connection with a local session identification established between the network element and the extension network element that includes a session identifier in a field of the modified TL1 message that originally contained an extended network element identifier; and

transmitting a response to the command messages including the session identifier back to a network element; and

wherein the network element is configured to:

determine a port to transmit the response based on the session identifier;

replace the session identifier with the extension network element identifier of the response; and

forward modified responses to respective sources of the original command messages.

11. (cancelled).

12. (currently amended) The system according to claim 11, wherein the extension network element exchanges command messages and responses with the network element via a ~~DCC~~ data communication channel connection.

13. (original) The system according to claim 11, wherein the extension network element does not have a separate terminal identification stored in the routing table of network elements within the network to which the extension network element is connected.